

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**APPELLANTS' REPLY BRIEF**

APPELLANTS: Birkhoelzer et al. CONFIRMATION NO. 7671  
SERIAL NO.: 09/992,974 GROUP ART UNIT: 3637  
FILED: November 19, 2001 EXAMINER: Ramsey Rafai  
TITLE: "MEDICAL SYSTEM ARCHITECTURE WITH A  
WORKSTATION AND A CALL SYSTEM"

**MAIL STOP APPEAL BRIEF- PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

SIR:

In accordance with the provisions of 37 C.F.R. §41.41, Appellants herewith submit a Reply Brief in response to the Supplemental Examiner's Answer mailed December 16, 2009.

## ARGUMENT

In the "Response to Argument" section beginning at page 9 of the Examiner's Supplemental Answer, the Examiner stated that Appellants have failed to define the term "medical examination images" in Appellants' specification. Appellants respectfully disagree, for several reasons. First, the term "medical images" is a well-understood term to those in the field of medicine, and therefore, once the term "medical images" is used in accordance with its normal understanding known to those of ordinary skill in the relevant technology, it would be redundant and unnecessary to provide any more specific definition of that term. Nevertheless, in the first paragraph at page 5 of the present specification, and as shown in Figure 1 of the application, imaging modalities 1 through 4 are specifically identified and are specifically stated to be "for the acquisition of medical images." These modalities 1 through 4 are specifically identified as a CT unit 1 for computed tomography, an MR unit 2 for magnetic resonance imaging, a DSA unit 3 for digital subtraction angiography, and an x-ray unit 4 for digital radiography. These are also specifically identified at this location of the specification as "image-generating systems." Appellants therefore submit that not only have used the term "medical images" in the specification in a manner consistent with the ordinary understanding of that term used by those of ordinary skill in the field of medicine, but also have provided specific examples.

The exhibits submitted during prosecution, and attached to Appellants' Main Brief, substantiate this ordinary usage of the term by those in the field of medicine.

In the aforementioned "Response to Arguments" section, the Examiner provided citations from two references that the Examiner considers to substantiate

the position of the Examiner. Appellants respectfully submit that the passages cited by the Examiner, in fact, substantiate the position of the Appellants, rather than the position of the Examiner.

The Examiner cited a passage from the Hutson reference (United States Patent No. 5,662,109) refers to correlating data from multiple modalities for medical imaging. The passage cited by the Examiner begins by referring to “multiple modalities for medical imaging” but ends with “other medical sensing systems.” It is left to the reader of that passage to apply to his or her own knowledge of the listed terms to decide which of those actually constitute “modalities for medical imaging” and which constitute “medical sensing systems.” According to the overwhelming support provided by the evidence attached to Appellants’ Main Appeal Brief, it is clear that electrocardiography (EKG) is not considered by those in the field of medicine to be a medical imaging system, but rather falls into the latter category of “medical sensing systems.”

Moreover, the Examiner’s boldfacing of “echocardiography (ECG)” in the aforementioned passage is not understood, since echocardiology is, without dispute, an imaging system wherein an actual image of the heart is obtained by ultrasound. The fact that the aforementioned listing in the Hutson reference differentiates ECG and EKG is an example that those of ordinary skill in the field of medicine do not equate those two types of systems or devices with each other.

The passage from the Hutson reference cited by the Examiner is a cautionary example of the loose and imprecise and superficial use of different well-defined terms in the medical field, and would be considered as such by those of ordinary skill in the medical field who would, upon reading that passage, properly sort out the jumble

of different terms in that passage. For example, an electrocardiogram is commonly referred to with either the designation ECG or EKG (since the English term “electrocardiogram” originated from the German term “elektrokardiogram”), and there is no question that an electrocardiogram refers to merely a line trace representing an electrical signal, and there is also no question that it is this type of line trace that is disclosed and used in the references cited by the Examiner as the basis for rejecting the claims on appeal. The fact that the passage in Hutson cited by the Examiner uses the designation ECG to stand for “echocardiography” (which, as noted above, Appellants do not dispute is a true imaging modality) clearly does not mean that the type of line trace that is disclosed in the references relied upon by the Examiner as the basis for the rejection can be equated with echocardiography which, Appellants assume, is the reason why, as noted above, the different designations EKG and ECG were used in the Hutson passage.

This is consistent with the other passage cited by the Examiner from the Manning et al. patent (United States Patent No. 6,501,979) which also *differentiates* between an “electrocardiogram (ECG)” and a medical imaging modality. The passage from the Manning et al. reference cited by the Examiner is clearly describing the situation of a medical imaging modality *interfering with* (i.e., distorting) an electrocardiogram *signal*, thereby clearly distinguishing such an electrocardiogram *signal* from a medical imaging modality.

Appellants therefore respectfully submit that Appellants’ arguments in the Appeal Brief have not been adequately rebutted by the Examiner and reversal of the rejections on appeal is respectfully requested.

Appellants are not requesting an oral hearing in connection with this appeal, and therefore this appeal is ready for submission to the Board of Patent Appeals and Interferences for rendering a Decision based on the written record.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by,



(Reg. 28,982)

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